

SHTYTSKO, E.Ye.

Edematous form of hemolytic disease in newborn infants (its pathologic anatomy, pathogenesis, differential diagnosis and mortality). Vop.okh.mat.i det. 7 no.9:49-56 S '62.

(MIRA 15:12)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. Yu.V. Gul'kevich) Minskogo meditsinskogo instituta (dir. - dotsent A.A.Klyucharov).

(ERYTHROBLASTOSIS FETALIS)

1. SHTYURK, A. Eng.; MUTAFOLO, L.
2. USSR-(600)
4. Ships-Painting
7. New developments in ship painting. Mor. flot. 12, No. 10, 1952.
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

SHTYURMER, Arno, inzh.

New portable textile printing machine. Tekst. prom. 18 no.8:66

Ag '58.

(MIRA 11:10)

(Germany, East--Textile printing)

ABADZHI, K.I.; BOYTSOV, A.N.; VOLOSEVICH, F.P.; GOBERMAN, P.N.; KUTAY, A.K.;
NARINSKIY, F.I.; ODING, G.A.; RUBINOV, A.D.; SHFYURMER, G.A.;
BRZHEZINSKIY, M.L., kandidat tekhnicheskikh nauk, retsenzent; PETROV,
V.I., inzhener, retsenzent; KEMPINSKIY, M.M., inzhener, redaktor;
LEYKINA, T.L., redaktor izdatel'stva; POL'SKAYA, R.G., tekhnicheskii
redaktor

[Reference manual for production control in machine building] Spravochnik po proizvodstvennomu kontroliu v mashinostroenii. Pod obshchei red. A.K.Kutai. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 670 p, (MIRA 9:12)
(Machinery industry)

RUMYANTSEV, S.N., kand.tekhn.nauk; SHTYURMER, G.A., kand.tekhn.nauk;
KHOVANOV, M.I.

Sliding friction coefficient of sunflower seed pulp relative to
a steel rod. Masl.-zhir.prom. 26 no.9:37-39 S '60.

(MIRA 13:8)

1. Voronezhskiy tekhnologicheskij institut, Leningradskoye otdele-
niye.

(Sunflower seed)

(Friction)

ABADZHI, K.I.; BOYTSOV, A.N.; VOLOSEVICH, F.P.; GOBERMAN, P.N.;
KEMPINSKIY, M.M.; KUTAY, A.K.; NARINSKIY, F.I.; ODING,
G.A.; TAYTS, B.A.; RUBINOV, A.D.; SHTYURMER, G.A.;
BRZHEZINSKIY, M.L., kand. tekhn. nauk, retsenzent;
SHALAYEVSKIY, O.V., red.; LEYKINA, T.L., red.izd-va;
SPERANSKAYA, O.V., tekhn. red.

[Handbook on production control in the machinery industry]
Spravochnik po proizvodstvennomu kontroliu v mashinostro-
enii. Izd.2., perer. i dop. Moskva, Mashgiz, 1964. 748 p.
(MIRA 17:3)

Shtyurmer, V. L.

USSR/Meteorology - Cloud effects

Card 1/1 : Pub. 86 - 30/40

Authors : Shtyurmer, V. L., and Vasil'ev, K. P.

Title : Sunlight reflected from a cloud

Periodical : Priroda 43/4, page 115, Apr 1954

Abstract : A detailed description is given of unusual lighting effects produced after a rain, the striking features of which were a double rainbow and a fanlike display of seven rays emanating from a cloud and bent at right angles.

Institution :

Submitted :

SHFYURMEN, Ye. B.

Reflexes

Reflexes of the nervous system during functional and organic disorders of the brain.
Vest. Len. un 7, No. 10, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

SHTYURMER, Ye.B., student.

Dynamics of changes in the so-called "accomodation constant" during
the development of parabiosis. Nauch.biul. Len.un. no.31:29-36 '53.
(MLRA 10:3)

1. Laboratoriya fiziologii tsentral'noy nervnoy sistemy.
(Parabiosis)

SHTYURMER, YE. B.

SHTYURMER, YE. B. -- "Aspects of the Vestigial Processes in the Reflex Reactions of the Respiratory and Vasomotor Centers." Leningrad Order of Lenin State U imeni A. A. Zhdanov. Physiological Inst imeni Academician A. A. Ukhtomskiy. Leningrad, 1955. (Dissertation for the Degree of Candidate of Biological Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956

SHTYURMER, Ye.B.

Role of rhythm adaptation in the formation of a motor stereotype
in man according to electroencephalographic data. *Fiziol.zhur* 44
no.9:859-865 S'58 (MIRA 11:12)

1. Kafedra fiziologii Leningradskogo instituta fizicheskoy kul'tury
im. P.F. Lesgefta i Fiziologicheskoy institut im. A.A. Ukhtomskogo
pri Leningradskom gosudarstvennom universitete.

(MOVEMENT, physiol.

rhythm adaptation in form. of motor stereotype, EEG
(Rus))

(ELECTROENCEPHALOGRAPHY.

in rhythm adaptation in form. of motor stereotype
(Rus))

SHTYURMER, Ye.B.

I.M. Sechenov as founder of the physiological theory of trace processes
in the nervous system. Uch. zap. LGU no.222:25-37 '57. (MLBA 10:8)
(NERVOUS SYSTEM) (MEMORY) (AFTERSENSATIONS)

KEMEN', A. [Kemeny, A.]; ~~KETASH~~, F.; GASHPAR, Zh.; SHTYUTSEL', M.

Study in vitro of the respiration and glycolysis of the vascular plexus
under various experimental conditions. Biokhimiia 26 no.5:787-793
S-0 '61. (MIRA 14:12)

1. Chair of Physiology, Veterinary Institute, Budapest.
(RESPIRATION) (CHOROID PLEXUS)
(GLYCOLYSIS)

SHUABE, A. K.

20937 Shuabe, A. K. Vliyaniye belkovogo rezhima na sostav moloka sbornik dokladov Pervoy Vsesoyuz. Konf-tsii po moloch. delu. M., 1949, s. 119-34

SC: LETOPIS ZHURNALSTAYEY - Vol. 28, Moskva, 1949

KUCHEROV, R.Ya.; SHUADER, Yu.A.

Weakly ionized rarefied plasma in a plane diode. Zhur. tekhn. fiz.
(MIRA 17:1)
39 no.1:66-76 Ja '64.

TSITSISHVILI, G.V., akademik; GRIGOLIYA, Ye.I.; ANDRONIKASHVILI, T.G.;
SHUAKRISHVILI, M.S.

Sorption of water vapor on molecular sieves. Soob.AN Gruz.SSR
28 no.1:17-24 Ja '62. (MIRA 15:4)

1. Akademiya Nauk Gruzinskoy SSR, Institut khimii imeni P.G.
Melikishvili, Tbilisi. 2. Akademiya Nauk Gruzinskoy SSR (for
TSitsishvili).
(Zeolites) (Adsorption) (Steam)

TSITSISHVILI, G.V., akademik; BAGRATISHVILI, G.D.; BEZHASHVILI, K.A.;
BARNABISHVILI, D.N.; SHUAKRISHVILI, M.S.

Production and study of the properties of X-type zeolites in
ammonium and hydrogen ion exchange forms. Dokl. AN SSSR 152 no.5:
1136-1139 O '63. (MIRA 16:12)

1. Institut khimii im. P.G.Melikishvili AN GruzSSR. 2. AN
GruzSSR (for TSitsishvili).

EWP(j)/EWT(1)/EWT(m)/BDS--AFPTC/ASD--Pc-4--RM
L 11218-63

ACCESSION NR: AP3001632

S/0192/63/004/003/0459/0460

64

63

AUTHOR: Baroni, Ye. Ye.; Ksenofontov, V. A.; Kucheryayev, A. G.; Oliferchuk, N. L.;
Shuander, Yu. A.

TITLE: Nuclear magnetic resonance of scintillators based on polystyroles

SOURCE: Zhurnal strukturnoy khimii, v. 4, no. 3, 1963, 459-460

TOPIC TAGS: NMR of protons, polystyrole and plastic scintillators

ABSTRACT: This study shows an experimental determination of some features of NMR in the polystyrole and plastic scintillators based on polystyrole which could be utilized for the study of structural properties. It was established that the NMR proton spectrum in the polystyrole and polystyrole with added scintillating substances at temperatures higher than 20-30C consist of two components: wide with DELTA H approximately equals 6.7 gauss and the narrow with DELTA H approximately equals 0.35 gauss. The amplitude of the narrow polystyrole component shows a temperature dependence at about 120C. With the introduction of luminescent materials the transition point is shifted into the region of lower temperatures. The wide component shows a transition of polystyrole at a temperature of approximately 75

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ACCESSION NR: AP3001632

and 120C. The introduction of scintillating materials shifts the point of transition to lower temperatures. Small additions up to 3% do not affect the transition at 75C. The NMR method may find its usefulness in the determination of a known concentration added to the polystyrole by means of shifting the transition points determined from the temperature dependence of the amplitude of the narrow component at the appropriate temperature. "The authors express their gratitude to V. M. Shoniya for the preparation of polystyrole and the scintillators in its base for these investigations." Orig. art. has: 2 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN Gruz SSR (Physico-Technical Institute, Gruz SSR)

SUBMITTED: 29Jan62

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 001

OTHER: 001

Card

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2/2

ACCESSION NR: AP4009922

S/0057/64/034/001/0066/0076

AUTHOR: Kuchеров, R.Ya.; Shuander, Yu.A.

TITLE: A weakly ionized rarefied plasma in a plane diode

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.1, 1964, 66-76

TOPIC TAGS: plasma, rarefied plasma, Knudsen plasma, weakly ionized plasma, weakly ionized Knudsen plasma, plane diode, plane plasma diode

ABSTRACT: The present paper is a continuation of previous theoretical work on the behavior of a plane diode containing a plasma in which the mean free path is much greater than the distance between the electrodes (M.I.Kaganov, R.Ya.Kuchеров and L.E.Rikenglaz, ZhTF, 31, 588, 1961; R.Ya.Kuchеров, and L.E.Rikenglaz, Ibid. 32, 1075, 1962). The potential in the space between the electrodes has been previously calculated for those conditions under which it is monotonic. When the potential is not monotonic, electrons are captured in the regions near the maxima, and collisions become important. The case of a single potential maximum has been previously treated for a highly ionized plasma, where only Coulomb collisions are important. In the present paper the case of a single potential maximum is treated for a weakly ionized plasma,

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ACC.NR: AP4009922

where. only Coulomb collisions can be neglected. The distribution of the captured electrons is obtained by solving the kinetic equation with a collision integral that describes elastic collisions of the electrons with neutral atoms at rest. Certain approximations introduced in the previous papers are employed without further discussion. The distribution of the electrons that are not captured at the potential maximum is taken from the earlier work. With these two distributions, which depend on the potential, Poisson's equation is solved for the potential, and self-consistent solutions are achieved. It is here assumed that the distance between the electrodes is much greater than the Debye radius of the plasma. Only such self-consistent solutions are sought as involve only a single maximum in the potential, and the operating conditions for which such solutions exist are found. "The authors express their gratitude to L.E.Rigenglaz for valuable discussions and to M.I.Kaganov for discussing the results of the work." Orig.art.has: 58 formulas and 7 figures.

ASSOCIATION: none

SUBMITTED: 25Oct62

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: PH

NR REF SOV: 003

OTHER: 000

Car. 2/2

AUTHORS: Lupenko, V. I. and Shuaev, E.S.

549

TITLE: On the duration of purging a system with a stream of an inert gas. (O prodolzhitel'nosti produvki sistemy inertnym gazom).

PERIODICAL: "Khimiya i Tekhnologiya Topliva i Masel" (Chemistry and Technology of Fuels and Lubricants), 1957, No.2, pp. 58-60 (U.S.S.R.)

ABSTRACT: An equation for calculating the time required for purging was derived:

$$t = - \frac{V}{m} \ln \frac{x - c}{a - c}$$

where: t - purging time; v - volume of system in m³;
m - rate of supply of an inert gas in m³/hour;
x - final concentration of the gas component being purged; c - concentration of the same component in the purging gas; a - initial concentration of the gas component being purged. In the derivation of the above formula an instantaneous and ideal mixing of gases was assumed. On the basis of experience, it is recommended to multiply the calculated time by a factor of three. 1 figure, no references.

Card 1/1

30(1)

SOV/89-59-9-10/14

AUTHOR: Shub, A.G., Engineer

TITLE: Reconstruction and Development of Tile Drainage in
the Kolkhozes of Chernovtsy Oblast' UkrSSR

PERIODICAL: Gidrotekhnika i melioratsiya, 1959, Nr 9, pp 59-60
(USSR)

ABSTRACT: In the Chernovtsy Oblast' of the UkrSSR there are
38 collective farms located in hilly regions and co-
vering about 30 thousand hectares. This land, partly
due to heavy rains and snows, partly because of abun-
dance in subsurface water, is strongly overirrigated.
To improve these conditions, 20.5 thousand hectares
of the area are drained by means of canals having a
total length of about 1300 km. Additionally, there
is a tile draining system built about 50 years ago
in the area of 3.63 thousand hectares which now be-
longs to kolkhozes, and on 170 hectares belonging to
a scientific-research station. The non-drained part

Card 1/3

SOV/99-59-9-10/14

Reconstruction and Development of Tile Drainage in the Kolkhozes
of Chernovtsy Oblast' UkrSSR

of the land with an area of 8.9 thousand hectares is non-productive, and is used, chiefly, as pasture. During WW II, most of the draining ditches became clogged, and the tile drainage system also went out of service. In the period 1954-1958, tile drainage was restored on 2 thousand hectares. Needless to say, under such conditions the harvest yields were extremely poor. The importance of drainage reconstruction was evident. As an example, the author gives the kolhoz "Radyans'ka Bukovina" in the Glybokskiy rayon, Chernovtsy Oblast' where the tile drainage was at one time laid out over 215 hectares. This drainage had satisfactorily carried out its function over about 35 years and, finally, became silted. In spring, 1957, the canals were cleaned and drainage restored. The increase in the harvest yield resulting from this measure is clearly seen from the Table, reproduced on page 60. In 1958, building a new tile draining net

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SOV/99-59-9-10/14

Reconstruction and Development of Tile Drainage in the Kolkhozes
of Chernovtsy Oblast' UkrSSR

in the Chernovtsy Oblast', in the Kolkhoz imeni
Fed'kovich in the Vizhnitskiy rayon was undertaken.
The net covered an area of 120 hectares; about 2000
tile ceramic pipes per hectare were used. As a result,
the total length of open draining line previously
used was shortened from 6.9 to 1.9 km, whereby favo-
rable conditions for mechanization of field work were
created. There is 1 table.

ASSOCIATION: Chernovitskiy oblvodkhoz (Chernovtsy Oblvodkhoz)

Card 3/3

KHIDEKEL', M. L.; SHUB, B. R.; RAZUVAYEV, G. A.; ZADOROZHNYI, N. A.;
PONOMARENKO, V. A.

2,4,6-tris (trimethylsilyl)-1-phenoxy, a monomer radical relatively
resistant to oxygen. Izv AN SSSR Ser Khim no. 4:776 Ap '64.
(MIRA 17:5)

1. Institut khimicheskoy fiziki AN SSSR, Gor'kovskiy gosudarstvennyy universitet im. N. I. Lobachevskogo i Institut organicheskoy khimii im. N. D. Zelinskogo AN SSSR.

SHUB, D.

"On the Planning of Capital Construction," (O planirovanii kapital'nogo stroitel'stva), /
Sovetskaya Bashkir., p. 2, 10 Aug 54, Ufa

Translation D 190800

USSR/Chemistry - Photosensitizing Catalysts Apr 52

"The Photoelectrochemical Process in the Micro-heterogeneous Sensitizing System ZnO Suspension/Solution," V. I. Veselovskiy, D. M. Shub, Phys Chem Inst imeni L. Ya. Karpov, Moscow

"Zhur Fiz Khim" Vol XXVI, No 4, pp 509-519

The ZnO photosensitizing system, which is of importance for clarifying the action of biol photosensitizers (chlorophyll), and for studying the stability of pigment-contg rubber, paints, and lacquers toward light was investigated by the

217T25

method of anodic polarography under use of a rotating Pt microelectrode. The mechanism of the process studied, which involves formation of H_2O_2 in the presence of O_2 , may be interpreted as an electrochem result of the extinction of ZnO fluorescence by oxygen. The presence of an org reducing agent (glycerin) sharply increased the photoelectrochem process on ZnO. At the same time, the effectiveness of anodic oxidation of glycerin at the Pt electrode is increased when the latter is irradiated with a wave length active for a Pt.PtO electrode.

217T25

SHUB, D. M.

SHUB, D.M.

Chem ✓ The mechanism of radiation-chemical homogeneous and heterogeneous formation of hydrogen peroxide. V. I. Veselovskii, N. B. Miller, and D. M. Shub. Symposium on Radiation Chem., Moscow 1957-58 (Engl. translation).—See C.A. 60, 0115g. B. M. R.

100

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D. M. SHUB

6
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1-pmt

The mechanism of radiation-chemical homogeneous and heterogeneous formation of hydrogen peroxide. V. 1. - Veselovskii, N. B. Miller, and D. M. Shub. *Sbornik Rabot Radiatsionnoi Khim., Akad. Nauk S.S.R.* 1955, 40-60. Peroxide formation under the influence of γ -radiation from an 80-curie Co^{60} source was studied in NaOH solns. (up to 0.3N), in $\text{Ba}(\text{OH})_2$ solns. of similar concn., and in ZnO suspensions in NaOH soln. In NaOH solns. steady-state concns. of H_2O_2 corresponded to $9 \times 10^{-4} \text{N}$. In the case of $\text{Ba}(\text{OH})_2$ solns., the pptn. of $\text{BaO}_2 \cdot 2\text{H}_2\text{O}$ permitted the peroxide yield to vary linearly only with time in expts. lasting as long as 8 hrs. The rate was equal to 1.7 equiv./100 e.v. which was the same as the initial rate in NaOH solns. In expts. with 2 g. of ZnO suspended per 100 ml. of 0.01N NaOH soln., H_2O_2 formation rates increase by 3-5 times over those observed in the absence of ZnO. The effect of ZnO is related to its absorption of radiation and its properties as a semiconductor. The reaction rates are followed by a novel anode-polarographic method.

C. H. Winkelman

pmt

Shub, D.M.

PH
E
The mechanism of the photosensitization of zinc oxide under the formation of hydrogen peroxide, and the fluorescent properties of zinc oxide. V. L. Veselovskii and D. M. Shub. *Problemy Kinetiki i Kataliza, Akad. Nauk S.S.S.R.* 62(1955). Curves are presented for the spectral sensitivity and quantum yields of the photoelectrochem. process on anodically polarized Zn electrodes; of the photoelectrochem. current, i.e. the efficiency of the H_2O_2 production, as a function of the potential of a Pt microelectrode for 4 ZnO samples; for the kinetics of the H_2O_2 formation for various intensities of the radiation; for the kinetics on ZnO, which has been annealed (tempered) at various temps. from 200 to 800°; for the rate of H_2O_2 formation and the magnitude of the fluorescence as a function of the annealing temp. of the ZnO; for the influence of the annealing temp. of ZnO upon the rate of H_2O_2 formation and the magnitude of fluorescence extinction in O_2 ; for the kinetics of the extinction and reappearance of the fluorescence of a ZnO suspension in solns. under the action of O and discharge of O atoms (H_2O or $H_2O +$ glycerol). The results lead to

the following conclusions: the action of light emission leads to the destruction of the surface bindings of O (adsorbed O) at the semiconductor during which destruction the high efficiency of this action is detd. by the sensitization mechanism of this process. The emission is absorbed in the whole vol. of the semiconductor, but the chem. process, i.e. the desorption of the O , is excited by the transference of the electron energy on the surface of a section of the semiconductor, i.e. the medium which is able to react. The reaction of emission-excitation of the chem. process of H_2O_2 formation in aq. suspensions of ZnO also proceeds under a sensitization mechanism, during the capture of excited electrons of the semiconductor, which occurs by the adsorption of mol. O . In the given reaction, owing to the greater electron affinity of O , electrons take part in the fluorescence, which are part of the neutral chem. surroundings and also these participate in a nonemitting transition. W J.

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Kuzov Phip-Chem Inst, Novosibirsk

Shub, D.M.

K-5

Category : USSR/Optics - Physical Optics

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4960

Author : Veselovskiy, V.I., Shub, D.M.

Inst : Physicochemistry Institute, USSR

Title : Mechanism of the Formation of Hydrogen Peroxide that is Photo-Sensitized by Zinc Oxide and the Fluorescent Properties of Zinc Oxide

Orig Pub : Probl. kinetiki i kataliza, 1955, 8, 53-52

Abstract : The authors sum up the results of an investigation on the mechanism of the heterogeneous reactions of the desorption of O_2 from ZnO, photo-sensitized by zinc oxide and of the formation of H_2O_2 in an aqueous solution in the presence of O_2 , and the connection between the sensitizing ability of ZnO and its semiconductor and fluorescent properties. The high quantum effectiveness (up to 50% in the case of incident light) of desorption is caused by the sensitization mechanism of the process: the radiation absorbed by the entire volume of ZnO excites electrons (and holes) which migrate to the surface, causing a chemical reaction (desorption of O_2). In the H_2O_2 -formation reaction, the oxygen adsorbed from the ZnO captures the electrons that are excited by radiation: $O_2 + e +$

Card : 1/2

VARSHAVSKIY, Ya.M., doktor khim.nauk, red.; GEL'BSHTEYN, A.I., kand.
khim.nauk [translator]; SHUB, D.M., kand.khim.nauk [translator];
SHEGLOV, O.F., kand.khim.nauk [translator]; ARNOL'DOV, V.V., red.;
IOVLEVA, N.A., tekhn.red.

[Catalytic, photochemical, and electrolytic reactions] Katali-
ticheskie, fotokhimicheskie i elektroliticheskie reaktsii. Moskva,
Izd-vo inostr.lit-ry, 1960. 436 p. Translated from the English.
(MIRA 13:11)

(Chemical reactions)

PIKTORINSKAYA, N.K.; SHUB, D.M.; BORODINA, M.L.; BOGATYREV, P.M.

Increasing the resistance to chalking of muffle zinc whites in
air. Lakokras. mat. i ikh prim. no. 6:21-26 '60. (MIRA 13:12)
(Zinc oxide)

S/076/60/034/010/009/00-
B015/B064

11.13/0
AUTHORS:

Shub, D. M., Tyurikov, G. S., and Veselovskiy, V. I.,

TITLE:

Photo- and Radiation-chemical¹⁹ Decomposition of ¹⁷Hydrogen Peroxide in the Presence of Iron Oxide

PERIODICAL:

Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 10,
pp. 2245-2253

TEXT: The application of semiconductor materials as heterogeneous sensitizers in the transformation of radiation energy into chemical energy is of special importance for the utilization of nuclear radiation to initiate radiation-chemical reactions. In continuation of previous investigations, the results are given of the photo- and radiation-chemical decomposition of concentrated H_2O_2 solutions with suspended Fe_2O_3 . A NPK -2 (PRK-2) quartz lamp served as light source, while Co^{60} with an activity of 80 Curies was used as γ -radiation source; the experiments were carried out in an apparatus warranting a stabilization of temperature, good mixing of the solution, and regular irradiation. The experimental

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84629

Photo- and Radiation-chemical Decomposition of Hydrogen Peroxide in the Presence of Iron Oxide S/076/60/034/010/009/022
B015/B064

results obtained show that the catalytic effect of Fe_2O_3 upon the H_2O_2 decomposition due to light irradiation, as well as the γ -rays is strongly increased. This means that a chain reaction sets in on the surface of Fe_2O_3 which is due to an energy transfer causing an excitation of the particles of the Fe_2O_3 surface, and that the chain reaction of the H_2O_2 decomposition is passed on into the liquid. The high photo- and radiation-chemical activity of Fe_2O_3 can only be due to the effect of a heterogeneous sensitization (which depends on the electronic state of the semiconductor). The active centers on the Fe_2O_3 surface which cause the chain reaction are the same in the thermal H_2O_2 decomposition and in the decomposition due to radiation. A temperature increase accelerates in both cases the rate of decomposition. Since no particular difference was observed between the effect of the ultraviolet light and the γ -radiation, the reaction mechanism is assumed to be the same in both cases. Apparently, the higher energy (approximately 1.25 Mev) of the γ -quanta is transformed into a

Card 2/3

33122
S/638/61/001/000/053/056
B125/B104

S.4500
24,3500 (1137, 1138)

AUTHORS:

Shub, D. M., Tyurikov, G. S., Veselovskiy, V. I.

TITLE:

Heterogeneous sensitization of radiochemical processes on the semiconductor - solvent interface

SOURCE:

Tashkentskaya konferentsiya po mirnomy ispol'zovaniyu atomnoy energii. Tashkent, 1959. Trudy. v. 1. Tashkent, 1961, 370-377

TEXT: Data on the radio-electrochemical process in ^{60}Co gamma irradiation (activity $\sim 20,000$ g-equ. Ra) of a $\text{Cu}\cdot\text{Cu}_2\text{O}$ electrode in a 0.1 KOH solution are presented. The action of the optical radiation of a 500-watt bulb under the same conditions is compared. The system $\text{Cu}\cdot\text{Cu}_2\text{O}$ -KOH solution was irradiated after 3-hr saturation with nitrogen. The radio-electrochemical effect was first determined only from the change of the electrode potential under the simultaneous action of cathode current and radiation from $\Delta V_c = V_c - V_T$ at $I = \text{const}$ for potentials between 0.770 v and 0.200 v. The potential was shifted toward more positive values by irradiation. V_c and V_T denote the electrode potential during and after irradiation, Card 1/4

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Heterogeneous sensitization ...

respectively. Visible light and gamma rays apparently give rise to similar excitation processes in the semiconductor, with the absolute values of ΔV_c under gamma irradiation being higher than with visible light. Fig. 2 shows the typical dependence of potential change on the duration of irradiation for an initial potential of 0.200 v. For the other initial potentials examined, the curve shape was similar, but the absolute values of ΔV_c were lower. The potential jump at the beginning and the following slow approach of the potential to the steady state are due to the excitation of the semiconductor and to the electrochemical oxidation, respectively. The components (OH, O₂) appearing in the radiolysis of water speed up the electrochemical reaction. The experimental results available so far are not sufficient to back the assumption of a specific mechanism for the radio-electrochemical process on the Cu-Cu₂O electrode. They suffice, however, for the following hypothesis: Due to the action of radiation, Cu₂O can be oxidized to Cu(OH)₂: hydrogen peroxide may also be produced by a sensitized reaction involving the oxygen which is always present in Cu₂O. The radio-electrochemical process on the Cu-Cu₂O electrode is of interest also for heterogeneous radiation sensitization.

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B125/B104

Heterogeneous sensitization ...

A noticeable sensitization, however, is only possible in the case of a sufficiently large acting surface of the sensitizer. According to data available on the damping of luminescence (see also Veselovskiy V. I., Miller N. B., Shub D. M. Sbornik rabot po radiatsionnoy khimii, M., AN SSSR, 49, 1955; Shub D. M., Tyurikov G. S., Veselovskiy V. I., Trudy I Vsesoyuznogo soveshchaniya po radiatsionnoy khimii, M., AN SSSR, 161, 1958), the energy of excitation of a semiconductor by electrons can be transferred to the solution components. A participation of excited electrons of the semiconductor with more than 3.0 ev in the reaction, and an excitation of radio-chemical processes by the energy absorbed and converted by the semiconductor are possible. The rate of disintegration under the action of irradiation is considerably increased by the presence of an Fe_2O_3 suspension. In a microheterogeneous system, the suspension $\text{Fe}_2\text{O}_3\text{-H}_2\text{O}_2$ solution is not substantially changed by radiation, and, therefore, the rate of hydrogen peroxide decomposition does not change either. The heterogeneous process depends on the electron state of the semiconductor, and the active surface centers determining the reaction are of the same nature during decomposition due to heat and irradiation. The

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33122

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B125/B104

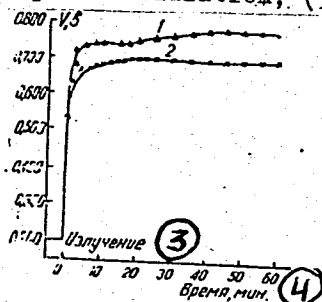
Heterogeneous sensitization ...

experimental data fit the said hypothesis and are indicative of the possible excitation of heterogeneous sensitization processes. There are 5 figures, 1 table, and 8 references: 7 Soviet and 1 non-Soviet.

ASSOCIATION: N.-i. fiziko-khimicheskiy institut im. L. Ya. Karpova
(Scientific Physicochemical Research Institute imeni L. Ya. Karpov)

Fig. 2. Dependence of the potential change of a $\text{Cu} \cdot \text{Cu}_2\text{O}$ electrode on the duration of irradiation.

Legend: (1) gamma radiation; (2) optical radiation; (3) radiation;
(4) time, min.



Card 4/4

S/844/62/000/000/031/129
D244/D307

AUTHORS: Shub, D. M., Belokopytov, V. P. and Veselovskiy, V. I.

TITLE: Investigation of radiation-chemical processes using semiconductor electrodes

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 188-192

TEXT: The system $\text{Cu} \cdot \text{Cu}_2\text{O}/\text{KOH}$ solution was investigated to determine whether semiconductor electrodes transform the absorbed energy of irradiation into electronic excitation energy, as is currently believed. The solution (0.1 N KOH) containing the $\text{Cu} \cdot \text{Cu}_2\text{O}$ -electrode was irradiated with γ rays from a Co^{60} source with an activity of about 20,000 g-equiv. Ra, and with visible light (500 W lamp). Under the irradiation, a shift of the $\text{Cu} \cdot \text{Cu}_2\text{O}$ -electrode potential (in the region of 0.2 - 0.7 v) in the positive direction, was observed. A reverse effect was observed in the region of 0.8 -

Card 1/2

Investigation of radiation- ...

S/844/62/000/000/031/129
D244/D307

1.7 v. Detailed analysis of the results in the region of 0.2 - 0.7 v showed that irradiation promoted an electrochemical reaction on the electrode surface, which led to the oxidation of Cu_2O . Reduction of the products of the oxidizing reaction and return of the electrode to its original state takes place by means of cathodic polarization. The oxidation reaction occurs as a result of absorption of the irradiation energy by Cu_2O . The results are interesting from the point of view of the elucidation of the possibility of reaching a stationary potential difference under the influence of ionizing radiation, since the $\text{Cu}\cdot\text{Cu}_2\text{O}$ electrode then assumes a sufficiently high and stable anodic potential. There are 4 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Institute im. L. Ya. Karpov)

Card 2/2

S/844/62/000/000/045/129
D287/D307

AUTHORS: Shub, D. M., Belokopytov, V. P. and Veselovskiy, V. I.

TITLE: Investigations of the radiolytic oxidation of organic substances sensitized with semiconductors

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd vo AN SSSR, 1962, 269-273

TEXT: Possible methods were investigated for increasing the yield of products during the radiolysis of organic substances, by using the system ZnO (suspension) - potassium oxalate (aqueous solution). The marked effect of heterogeneous sensitization can only be observed when the active surface of the sensitizer is sufficiently large. ZnO suspensions in aqueous potassium oxalate were therefore used, being continuously agitated during irradiation (800 rpm). Oxygen or nitrogen were led through the solution (40 ml/min) and the reaction temperature kept constant at 20°C. After irradiation the concentrations of $K_2C_2O_4$ and H_2O_2 were determined and compared with

Card 1/3

Investigations of the ...

S/344/62/000/000/045/129
D287/D307

data obtained for solutions not containing ZnO. The samples consisted of 50 ml of 5.0×10^{-3} N $K_2C_2O_4$ solution (containing 1 g ZnO). Investigations on the relationship between the decomposition of $K_2C_2O_4$ and the time of irradiation showed, in the presence of oxygen, that the rate of decomposition increased noticeably in the presence of ZnO. The yields also increased (4.7 mol/100 ev as against 2.8 mol/100 ev in homogeneous solutions) in the presence of ZnO but no marked discrepancies in the yield of H_2O_2 could be recorded in the presence or absence of the suspension (2.4 and 2.2 respectively). The gaseous phase did not contain any CO_2 and it is suggested that the CO_2 is absorbed by the solution, increasing its pH. This increase could also be observed during irradiation for e.g. 5 hours. Decomposition yields were much higher when the experiments were carried out in a current of nitrogen; increased reaction rates were also recorded but no H_2O_2 could be detected. A linear relationship

Card 2/3

investigations of the ...

S/844/62/000/000/045/129
D287/D307

exists between the decomposition of $K_2C_2O_4$ and the quantity of ZnO in the solution when the solution is irradiated for 20 min. The reaction is thus heterogeneous. Heterogeneous sensitization processes may, therefore, constitute one method for utilizing nuclear radiation more effectively in chemical reactions. There are 4 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-Chemical Institute im. L. Ya. Karpov)

Card 3/3

SHUB, G., inzh.

Assembling and operating truck dumpers. Mik.-elev.prom. 25 no.3:
22-23 Mr '59. (MIRA 12:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov
yego pererabotki.
(Dumping appliances)

USSR/Microbiology - Antibiosis and Symbiosis. Antibiotics.

F-2

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43222

Author : Shub, G.M.

Inst : -

Title : A Laboratory and Clinical Study of Effects of Syntomycin on Proteus Bacillus.

Orig Pub : V sb.: Gnoyny otit, ego oslozhneniya i lechenie. Saratov, 1957, 59-66.

Abstract : In experiments in vitro syntomycin inhibited development of proteus in a concentration of 1 mg/ml, and levonycetin in a concentration of 0.02 mg/ml. When levonycetin was injected into mice at a dosage of 0.75 mg at the time they were infected intraperitoneally by Bacterium proteus or 3 hours after infection, 100% survival of the animals was observed. In chronic otitis in humans, application of syntomycin in the form of a 1% emulsion produced total disappearance of the causal agent.

Card 1/2

SHUB, G. M. Cand Med Sci -- (diss) ^{Use} "Application of antiphage serum for
the purpose of ^{increasing the insulation of typhoid fever} sifting out abdominal typhus bacteria." Saratov, 1959. 11 pp
(Min of Health RSFSR. Saratov State Med Inst), 200 copies (KL, 52-59, 127)

SHUB, G.M.

Isolation of typhoid fever bacteria in media with antiphagic serum in experimental chronic infection. Trudy Sar. gos. med. inst. 26:220-225 '59. (MIRA 14:2)

1. Saratovskiy meditsinskiy institut, kafedra mikrobiologii
(zav. - prof. S.I. Sherishorina).
(TYPHOID FEVER) (BACTERIOLOGY—CULTURES AND CULTURE MEDIA)
(BACTERIOPHAGE)

SHUB, G.M.

Dehydrogenase and cytochrome oxidase activity of levomycetin-resistant and sensitive typhoid bacteria. Antibiotiki 6 no.5:437-441 My '61.
(MIRA 14:7)

1. Kafedra mikrobiologii (zav. - prof. S.I.Sherishorina) Saratovskogo meditsinskogo instituta.
(SALMONELLA TYPHOSA) (CYTOCHROMES)
(DEHYDROGENASE) (CHLOROMYCETIN)

SHUB, G.M.

Separation of typhoid fever bacteria in media with antiphage serum.
Lab. delo 7 no.2:54-56 F '61. (MIRA 14:1)

1. Kafedra mikrobiologii (zav. - prof. S.I.Shereoshorina) Saratov-
skogo meditsinskogo instituta. (BACTERIOPHAGE)
(TYPHOID FEVER) (BACTERIOLOGY, CULTURES AND CULTURE MEDIA)

SHUB, G.M.; SHENDERCV. B.A.

Catalase and peroxidase activity of typhoid fever bacteria
sensitive and resistant to levomycin. Antibiotiki 8 no.1:
69-71 Ja'63. (MIRA 16:6)

1. Kafedra mikrobiologii (zav. - prof. S.I.Sherishorina)
Saratovskogo gosudarstvennogo meditsinskogo instituta.
(CATALASE) (PEROXIDASES) (SALMONELLA)
(LEVOMYCETIN)

SHERISHORINA, S.I.; SHUB, G.M.; SHENDEROV, B.A.

Effect of levomycetin and some chemotherapeutic compounds on the
activity of dehydrogenases in dysentery bacilli. Antibiotiki 9 no.12:
1066-1070 D '64. (MIRA 18,7)

1. Kafedra mikrobiologii (zav. - prof. S.I.Sherishorina) Saratovskogo
meditsinskogo instituta.

SHVARTS, L.S.; SHUB, G.M.; YUDANOVA, L.S.

Immunology of atherosclerosis; preliminary report. Kardiologiya
5 no.2:56-60 Mr-Apr '65. (MIRA 18:7)

1. Saratovskiy meditsinskiy institut.

SHUB, G.M.

Evaluation of some immunobiological indices in the use of nitrofurantoin preparations. Report No.2: Effect of preparations of the nitrofurantoin series on the general immunological reactivity. Zhur. mikrobiol., epid. i immun. 42 no.1:44-46 Ja '65. (MIRA 18:6)

1. Saratovskiy meditsinskiy institut.

USSR/Metals - Steel, Precision Casting

Jul 51

"Fabrication of Precision Steel Castings in Machine Building," I. Ye Shub, Cand Tech Sci

"Littey Proizvod" No 7, pp 2-6

Discusses precision casting process in general and its various stages, such as: patterns and molds for pattern fabrication, pattern materials (stearin, paraffin, ceresin, beeswax, colophony, frozen mercury), pattern coatings, investment molds, methods of pouring, etc. Tabulates extent of mechanization realized in

196T96

USSR/Metals - Steel, Precision Casting (Contd)

Jul 51

production of precision castings: 14 out of 18 basic operations are partly mechanized and half of all operations may be automatized.

196T96

PA 196T96

Shub, I. Ye.

CHUE, I. Ye.

Precision Casting

Results of the Conference of the Moscow Branch of the All-Union Scientific Engineering and Technical Society of Foundrymen on the exchange of experience in casting from fusible patterns. Lit. prokzv. No. 1, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

SHUB, T. YE.

Founding

Concerning the article "New developments in founding by means of fossible models."
Lit. proizv. No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

Shub, I. E.

Sand-resin mixture for shell molding. I. E. Shub and
 P. I. Kantor. *Litelsnoe Proizvodstvo* 1956, No. 9, 1-5.
 Domestic and foreign practices are reviewed and testing
 methods critically analyzed. As optimum, a mixt. of coarse
 and fine sands in the ratio of 3:1 is recommended, to which
 is added 4.5-5% of a mixt. of a phenol-formaldehyde resin
 with urotropine for steel and Cu and 3.5-4% of it for light
 alloys. In both cases it is advantageous to add 18-20%
 (of the Bakelite) of a 50% soln. of Bakelite in furfural.
 The latter is added to the dry sand, mixed for 5 min., and
 then the remaining mixt. is added. Furfural alone (0.8%)
 can be used as the wetting agent. J. D. Gat

5
 1 PM
 2
 2 may

PM
 PB
 MK

SHUB, I. Ye., kandidat tekhnicheskikh nauk; SHORYGINA, N. V., kandidat
khimicheskikh nauk; KANTOR, P. I., inzhener.

Gluings together the two halves of the shell mold. Lit. proizv.
no. 11:2-5 N '56. (MIRA 10:1)
(Shell molding (Founding)) (Gluings)

SHUB. 14c.

PHASE I BOOK EXPLOITATION 899

Mekhanizatsiya i avtomatizatsiya liteynogo proizvodstva (Mechanization and Automatic Control of Founding Processes) [Leningrad] Lenizdat, 1957. 224 p. 3,000 copies printed.

Ed.: (title page): Sokolov, A.N.; Ed.: (inside book): Yemel'yanova, Ye. V.; Tech. Ed.: Rodchenko, N.I.

PURPOSE: This book is intended for engineers and technical personnel working in the founding industries.

COVERAGE: The book presents experience gained by several Leningrad plants in the field of mechanization and automation of metal casting processes. It is stated that in total production of castings the Soviet Union is catching up with the U.S.A., and in production of steel castings the USSR is already leading. Soviet production of castings in 1955 amounted to 11 million tons, 2 million of which were steel castings. No personalities are mentioned. There are 33 references, 29 of which are Soviet, 3 English, and 1 German.

Card 1/3

Mechanization and Automatic (Cont.) 899

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SHUB. 14c

25(1) *pr* PHASE I BOOK EXPLOITATION SOV/1440

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy
promyshlennosti. Leningradskoye oblastnoye pravleniye

Lit'ye povyshennoy tochnosti (High-precision Casting) Moscow,
Mashgiz, 1958. 196 p. (Series: Its: Sbornik, kn.45)
7,000 copies printed.

Ed.: A.N. Sokolov; Tech. Ed.: L.V. Sokolova; Managing Ed. for
Literature on Machine-building Technology (Leningrad Division,
Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for engineers and technicians at
foundries and planning and research institutes.

COVERAGE: The book contains the transactions of a special
conference called in November, 1956, by the Leningrad Oblast
Administration of the Nauchno-tekhnicheskoye obshchestvo NTO
(Scientific and Technical Society of the Machine-building
Industry). The articles describe advanced techniques used in

Card 1/5

High-precision Casting

SOV/1440

precision-casting processes such as shell molding, investment casting, pressure die casting, press die casting (called in Russian "forging of liquid metal"), and suction casting. Special attention is given to the production of large precision castings, one of the principal problems in the industry. At the same time, methods of improving the precision of sand-mold castings are examined. Experience gained in the mechanization of precision-casting and shell-molding processes is reported. Information is given on the present state of precision casting, both in the USSR and elsewhere. No personalities are mentioned.

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PHASE I BOOK EXPLOITATION

1098

Shub, Il'ya Yefimovich, Candidate of Technical Sciences and
Sorokin, Pavel Vasil'yevich, Candidate of Technical Sciences

Tochnoye lit'ye po vyplavlyayemym modelyam (Precision Investment
Casting) Moscow, Mashgiz, 1958. 229 p. 5,500 copies printed.

Reviewer: Shamirgon, S.A., Docent; Ed.: Sokolov, A.N., Candidate
of Technical Sciences, Docent; Ed. of Publishing House: Chfas,
M.A.; Tech. Ed.: Speranskaya, O.V.; Managing Ed. for Literature
on Machine-Building Technology (Leningrad Division, Mashgiz):
Naumov, Ye. P., Engineer.

PURPOSE: This book is intended for investment casting workers. It
may also be used by foremen and technologists and by students of
trade and technical schools.

COVERAGE: The authors give a step-by-step description of the
investment casting process and summarize experience gained

Card 1/5

Precision Investment Casting 1098

in various branches of industry in the USSR. Attention is given to rational working methods and to the latest developments in investment casting techniques and also to modern equipment and safety technique. Problems of increasing the quality of castings and measures for eliminating rejects in all basic operations are discussed in detail. The basic technical and economic indices are given and the advantages of investment casting are discussed. No personalities are mentioned. There are 21 Soviet references.

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28(1) PHASE I BOOK EXPLOITATION SOV/2156
Soveshchaniye po kompleksoy mekhanizatsii i avtomatizatsii
tekhnologicheskikh protsessov. 2nd, 1956.
Avtomatizatsiya mashinostroitel'nykh protsessov: /trudy
soveshchaniya/, tom. 1: Goryachaya obrabotka metallov
(Automation of Machine-Building Processes; Proceedings of the
Conference on Over-All Mechanization and Automation of Technol-
ogical Process, Vol. 1: Hot Metal-Forming) Moscow, 1959. 394 p.
5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.
Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: V.I. Dikushin, Academician; Compiler: V.M. Raskatov;
Ed. of Publishing House: V.A. Katov; Tech. Ed.: I.P. Kuz'min.

PURPOSE: The book is intended for mechanical engineers and
metallurgists.

COVERAGE: The transactions of the Second Conference on the Over-All
Mechanization and Automation of Industrial Processes,
September 25-29, 1956, have been published in three volumes. This
book, Vol. 1, contains articles under the general title, "Hot
Working of Metals. The investigations described in the book were
conducted by the Sections for Automation and Hot Working of Metals,
under the direction of the following scientists: casting - A.I. Tselikov,
A.N. Aksekov, D.P. Ivanov and G.M. Orlov; forming - A.I. Tselikov,
B.P. Potelov and V.F. Meshcherin; welding - G.A. Nikolayev,
B.P. Potelov and G.A. Maslov. There are 183 references: 142
Soviet, 34 English, 6 German, and 1 French.

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PHASE I BOOK EXPLOITATION

SOV/5458

Girshovich, Naum Grigor'yevich, Doctor of Technical Sciences, Professor, ed.

Spravochnik po chugunnomu lit'yu (Handbook on Iron Castings) 2d ed., rev. and enl. Moscow, Mashgiz, 1961. 800 p. Errata slip inserted. 16,000 copies printed.

Reviewer: P. P. Berg, Doctor of Technical Sciences, Professor; Ed.: I. A. Baranov, Engineer; Ed. of Publishing House: T. L. Leykina; Tech. Eds.: O. V. Speranskaya and P. S. Frumkin; Managing Ed. for Literature on Machine-Building Technology (Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This handbook is intended for technical personnel at cast-iron foundries. It may also be of use to skilled workmen in foundries and students specializing in founding.

COVERAGE: The handbook contains information on basic problems in the modern manufacture of iron castings. The following are discussed: the composition and properties of the metal; the making of molds; special casting methods; the charge preparation; melting

Card 1/11

Handbook on Iron Castings

SOV/5458

and modifying the cast iron; pouring, shaking out, and cleaning of castings; heat-treatment methods; and the inspection and rejection of castings. Information on foundry equipment and on the mechanization of castings production is also presented. The authors thank Professor P. P. Berg, Doctor of Technical Sciences, and staff members of the Mosstankolit Plant, headed by the chief metallurgist G. I. Klitskin, Candidate of Technical Sciences, for their assistance. References follow each chapter. There are 287 references, mostly Soviet.

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Handbook on Iron Castings

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S/137/62/000/001/066/237
A060/A101

AUTHORS: Dorf, Z. P., Klimenko, V. N., Radomysel'skiy, I. D., Shub, I. Ye.

TITLE: The requirements of the Leningrad sovnrarkhoz industry for metallo-ceramic articles, and the economic efficiency of their introduction

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 42, abstract 10321 ("Poroshk. metallurgiya", 1961, no. 3, 100-110, English summary)

TEXT: An inspection of 100 enterprises of the Leningrad sovnrarkhoz has brought to light the requirements for metallo-ceramic articles numbering 44.3 million pieces with total weight 2,746 tons (1,109 denominations). Of all the forms of metallo-ceramic articles the share of structural materials is ~66%, magnetic - ~24%, antifriction - ~6%. The requirements for metallo-ceramic articles for 1965, constituting 4,915 tons, is also determined. Recommendations are cited on the organization of the metallo-ceramic production at various Leningrad enterprises. The economic aspect of the industrial application of articles fabricated by the methods of powder metallurgy is analyzed. The nominal yearly saving on account of the introduction of powder materials constitutes >3 million rubles. In Leningrad the introduction of every thousand tons of

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S/137/62/000/001/066/237
A060/A101

The requirements of the Leningrad ...

of metallo-ceramic articles is accompanied by a saving of 1.6 million rubles,
2.6 thousand tons of metal, and 260 workers and 152 metal cutting machines are
freed.

R. Andriyevskiy

[Abstracter's note: Complete translation]

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34059

S/128/62/000/002/007/007
A004/A127

184000

AUTHORS: Shut, I. Ye., Kondrat'yev, Yu. P.

TITLE: Metal-plastics press molds for precision casting

SERIODICAL: Liteynoye proizvodstvo, no. 2, 1962, 35 - 37

TEXT: The authors report on investigations carried out by the Vsesoyuznyy proyektiro-tekhnologicheskii institut (All-Union Design and Planning Technological Institute) of the Leningradskiy and the Central Laboratory of the Armaturnyy zavod im. Lepse (Fittings Plant im. Lepse) - Eng. V. L. Abramov of the latter participating - to select suitable materials and develop methods of making press molds from a metal-plastics compound. Laboratory tests of press molds made of epoxy resin with filler disclosed a number of essential deficiencies, e.g., poor heat conductivity of the resin used, easy deformation of the mold and formation of large clearances, etc. To eliminate these deficiencies, tests were carried out with press molds consisting of the ЭД-6 (ED-6) epoxy resin and dibutylphthalate as plasticizer and aluminum powder. The facing and filler compounds were of the following composition: 50 and 25% resin; 43 and 64% aluminum powder screened through a 025 and 1 mesh sieve; 2 and 3.5% dibutylphthalate and 5 and 2.5%

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34059

S/128/62/000/002/107/001
A004/A127

Metal-plastics press.....

polyethylene-polyamine (as hardener). The plastic possessed the following parameters: $\sigma_b = 250 \div 350 \text{ kg/cm}^2$; $\epsilon = 0.1 \div 0.2\%$; $\sigma_k = 8 \div 10 \text{ kg/cm}^2$; HB = 10 - 12 units, measured with a 5-mm ball at 250 kg load; heat conductivity - 1.73 kcal/m/h-degree; specific heat - 0.37 kcal/kg-degree, density - 1,720 kg/m³. The investigations revealed that a 1-hour heat treatment of the specimens at 70 - 80°C increased their tensile strength, notch toughness and hardness by 20 - 25%. By a short vibration or low-vacuum treatment at 400 - 500 Hg, the porosity was reduced and the density and strength increased by 10 - 12%. An additional heat treatment of the finished press molds for 6 - 8 hours at 50 - 55°C prevents their deformation and increases the material strength by 8 - 12%. The master patterns were made in the ordinary way of steel, cast iron, nonferrous alloys, mixtures of epoxy resin with wood fillers, etc. The authors give a description of the press mold manufacturing process and point out that the labor consumption and costs of the new metal-plastics press molds are reduced by a factor of 2 - 4, the press mold manufacturing process is accelerated by a factor of 2.5 and their weight reduced by a factor of 10. The described press molds are most effectively used in the production of large-size thin-walled patterns of intricate shape. At present, they are being introduced in several Leningrad plants. There are 7 figures and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The references to three English-language publications read as follows: "Foundry", no. 3, 1958.

Card 2/3

Card 2/3

S/118/62/000/005/001/001
D234/D308

AUTHORS: Gol'berg, I.G., Sverdlov, V.I., Engineers, and
Shub, I.Ye., Candidate of Technical Sciences

TITLE: An automated department for casting under pressure

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva,
no. 5, 1962, 4 - 6

TEXT: Description of the department for casting zinc
alloys and brass, designed by Gipropribor and NIITMASH Leningrad-
kogo sovnarkhoza jointly with Leningradskiy karbyuratornyy zavod
(Leningrad Carburetor Plant) and now under construction at the lat-
ter. Magneto-hydrodynamic pumps for proportioning and transporting
metal were designed at the Institute of Physics of the Latvian Aca-
demy of Sciences and by TsKTB. In the section of zinc alloys liquid
metal is fed directly to the batchers through a pipeline and the
pump secures constant pressure. Automatic control system is based on
the principle of controlling voltage supplied to the windings of pump,

Card 1/2

SHUB, I.Ye.; KONDART'YEV, Iu.P.

Metallic plastic pressmolds for precision casting. Ratsionalizatsiia
no.7:24-26 '62.

SHUB, I.Ye.

Second Scientific Technological Conference on automatic
proportioning and transportation of liquid metal. Lit. proizv.
no.7:47-48 J1 '63. (MIRA 17:1)

L 42068-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5010908

UR/0286/65/000/007/0096/0096

AUTHORS: Alekseyevskaya, Ye. K.; Neohayev, B. A.; Golovanov, N. N.; Shub, I. Ye.,
Novikov, A. N.; Kravets, L. V.

TITLE: A ceramic coating for making casting molds by melting patterns of chemically active metals. Class 31, No. 169762

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 96

TOPIC TAGS: ceramic coating, casting, molding material, magnesite, olivine, foreterite

ABSTRACT: This Author Certificate presents a ceramic coating for making casting molds by melting patterns of chemically active metals. To obtain castings without sand burning pickup, the filler is made up of materials with basic properties, such as magnesite, olivine, foreterite, and 15-30% of binder for the casting sand.

ASSOCIATION: none

SUBMITTED: 01Jul63

ENCL: 00

SUB CODE: MT, MM

NO REF SOV: 000

OTHER: 000

am
Card 1/1

SHIB. 1. Ye.

Shell mold casting in Japanese plants. Lit. proizv. no. 1:
44 Ja 1965. (MIFA 18:3)

BOKOV, I.I., kand.tekhn.nauk; SHUB, L.G., inzh.

Effect of ironing passes in rolling on the properties of low-carbon steel sheet. Stal' 23 no.4:340-343 Ap '63. (MIRA 16:4)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.
(Rolling (Metalwork)) (Sheet steel)

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																																																			
<p>CR</p> <p>Treatment of vegetable fibers. N. P. Batsin, A. B. Surovaya, and L. S. Shub. U.S.S.R. 66,500, June 30, 1940. Prior to the cooking of vegetable fibers, e.g. linter, they are coated with a thin layer of a saponifiable acid, e.g. with an aq. emulsion of resin partly saponified with NH_4OH.</p> <p>M. Hosh</p>																										<p>21</p>																									
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1ST AND 2ND GROUPS		3RD AND 4TH GROUPS	
PROCESSING AND PROPERTIES INDEX		COMMON ELEMENTS	
<p><i>ca</i></p> <p>Alkaline bucking of cotton. N. P. Batyn and L. S. Shub. U.S.S.R. 65,936, Feb. 28, 1940. The purpose of this method is to save lye in bucking cotton. To this end the cotton fabric is covered with a thin uniform coating of a fatty acid. On heating, the fatty acid dissolves the cotton fatty waxes, thereby facilitating their saponification, emulsification, and final removal. To apply the fatty acid, the fabric is satd. with a soap soln. and then treated with a mineral acid.</p> <p>M. Hosh</p>		<p>25</p>	
<p>438.31A METALLURGICAL LITERATURE CLASSIFICATION</p>		<p>COMMON ELEMENTS</p>	
<p>1ST AND 2ND GROUPS</p>		<p>3RD AND 4TH GROUPS</p>	

SHUB, L.S., inzh.

Technical progress in cotton finishing. Tekst. prom. 18 no. 7:38-
39 J1 '58. (MIRA 11:7)

(Cotton finishing)

SHUB, L.S., referent

Dyeing of cotton fabrics with reactive dyes (from "Textile
Industries," February, 1960). Tekst. prom. 20 no. 12:76-
77 D '60. (MIRA 13:12)

(Dyes and dyeing--Cotton)

SINEGUB-LAVRENKO, Anna Antonovna; ANISIMOV, Viktor Ivanovich; TARASOVA,
Lyudmila Aleksandrovna; MIKLASHEVSKIY, S.P., retsenzent; SHUB, L.S.,
spets. red.; VERBITSKAYA, Ye.M., red.; SHVETSOV, S.V., tekhn. red.

[Photomechanical methods for the production screens for textile
printing] Fotomekhanicheskie sposoby izgotovleniia form dlia pe-
chati na tkaniakh. Moskva, Izd-vo nauchno-tekhn.lit-ry RSFSR,
1961. 142 p. (MIRA 15:1)

(Textile printing) (Photomechanical processes)

KUTANIN, Anatoliy Fedorovich; KASHIN, Vatslav Aleksandrovich; SMIRNOV, Gennadiy Nikolayevich; DMITRIYEVSKAYA, Nina Petrovna; PUZYREV, A.V., kand.tekhn.nauk, red.; SOROKIN, N.S., retsenzent; SHUB, L.S., retsenzent; VERBITSKAYA, Ye.M., red.; VINOGRADOVA, G.A., tekhn.red.

[Safety measures in dying and finishing shops] Tekhnika bezopasnosti v krasil'no-otdelochnom proizvodstve. By A.F.Kutanin and others. Moskva, Izd-vo nauchno-tekhn.lit-ry RSFSR, 1961. 147 p.

(MIRA 14:12)

(Textile industry--Safety measures)

MOISEYEV, Aleksey Grigor'yevich; PETROV, Viktor Mikbaylovich; VOLKOV, I.V., retsenzent;
VERBITSKAYA, Ye.M., red.; SHUB, L.S., spets.red.; SHVETSOV, S.V., tekhn.red.

[Manual for engraving of textile patterns] Rukovodstvo po
gravirovaniu tekstil'nogo risunka. Moskva, Izd-vo nauchno-
tekhn.lit-ry RSFSR, 1961. 147 p. (MIRA 15:2)
(Textile printing) (Engraving)

BORISOV, N.N.; SHUB, L.S.

Plotting board for determining the surface dimensions of sheep-
and goatskins. Kozh.-obuv.prom. 6 no.3:33 Mr '64. (MIRA 17:4)

SHUB, L.S., inzh.referent

Catalysts for crease resistant finish (from "Textile Manufacturer,"
February, March 1960). Tekst. prom. 21 no. 4:78-80 Ap '61.

(MIRA 14:7)

(Crease-resistant fabrics) (Catalysts)

STEPANOV, Andrey Sergeyevich; SHUB, L.S., retsenzent; MORYGANOV,
P.V., retsenzent; VERBITSKAYA, Ye.M., red.

[Development of technology of the finishing of cotton,
linen and rayon fabrics] Razvitie tekhnologii otdelki
khlopchatobumazhnykh, l'nianyykh i viskoznykh tkanei. Mo-
skva, Legkaia industriia, 1965. 267 p. (MIRA 18:7)

SHUB, M.G.

Plastic surgery and postoperative therapy in radical ear surgery. Vest.
otorinolar., Moskva 15 no.4:66-69 July-Aug 1953. (CJML 25:1)

1. Candidate Medical Sciences. 2. Of the Clinic for Diseases of the
Ear, Throat, and Nose (Director -- Prof. M. I. Vol'fkovich), Saratov
Medical Institute.

SHUB, M.G., kandidat meditsinskikh nauk

Furacillin therapy in chronic purulent otitis media. Vest. oto-rin.
17 no.5:81-82 S-0 '55. (MIRA 9:2)

1. Iz kliniki bolezney ukha, gorla, i nosa (zav. - prof. M.I.
Vol'fkovich) Saratovskogo meditsinskogo instituta.
(EAR--DISEASES) (FURALDEHYDE)

Shub, M. G.

USSR / Pharmacology, Toxicology, Cardiovascular Drugs. V

Abs Jour : Ref Zhur - Biol., No 20, 1958, No 94305

Author : Shub, M. G.

Inst : Not given

Title : Treatment of Chronic Purulent Otitis with Furacillin.

Orig Pub : V sb.: Gnoyny otit, yego oslozheniya i lecheniye. Saratov, 1957, 75-80.

Abstract : Furacillin (I) was applied for the treatment of chronic purulent middle-ear otitis after the radical ear operation of 96 patients by insufflation of a 0.15 g dose of powder. The effect appeared 8 - 10 days after treatment. During controlled bacteriological investigation of the secretion of the tympanic cavity after treatment, the smear cultures from 81% of the patients (out of 42) were found to be sterile. The treatment with I does not cause any complications and is well tolerated by the patients.

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